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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,798

10/10/2006

Yngve Andersson

P19092-US1

4730

27045 7590 01/23/2009
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EXAMINER

AMIRMOKRI, JALALEDDIN

ART UNIT

PAPER NUMBER

4182

MAIL DATE

DELIVERY MODE

01/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,798	Applicant(s) ANDERSSON ET AL.	
	Examiner JALALEDDIN AMIRMOKRI	Art Unit 4182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/10/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/10/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Status

1. This is in response to application filed on September 15, 2006 in which claims 11-18 are presented for examination.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 10/10/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

3. The disclosure is objected to because of the following informalities: Page 2, line 13, the term "CELL_INFO_LIST" lacks antecedent. Page 2, line 18, the phrase "reasons never are" is improper should be changed to "reasons are never". Page 3, lines 23-24 refer to claims 1, 5, 6 and 7 which have been cancelled. Page 5, line 8, the reference "150" is incorrect, should be changed to "130". Page 5, line 32, the phrase "cell already is" is improper, should be changed to "cell is already". Appropriate corrections are required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11, 12, 15 and 16 are rejected under 35 U.S.C 103(a) as being unpatentable over Linduist et al. (US Patent No. 6,983,149), in view of Amerga et al. (US Patent No. 7,369,534) and further in view of Stern-Berkowitz et al. (US Patent No. 7,308,264).

Regarding claim 11, Linduist teaches a method in a Radio Network Controlling unit in a mobile telecommunication network (as described in column 1, lines 48-64) for including a detected set cell (as described in column 4, lines 15-18) in an active set (as described in column 1, lines 48-56), wherein said detected set cell is a cell not identified by the network and said active set is the set comprising the base stations simultaneously connected to the same mobile terminal in soft handover (as described in column 1, line 48-64), said method comprising the steps of: receiving a measurement report comprising a detected set cell from a mobile terminal located in a first cell (as described in column 9, lines 61-64); providing a list for the first cell in the network with cells not defined as neighboring cells to the first cell (as described in column 4, lines 15-18).

Linduist fails to teach that the cells in the list are grouped based on their scrambling codes; identifying the scrambling code of the detected set cell.

Amerga teaches that the cells in the list are grouped based on their scrambling codes; identifying the scrambling code of the detected set cell (as described in column 2, lines 28-31 and column 5, lines 27-29). It was well know and common knowledge to a person with ordinary skill in the art at the time the invention was made that scrambling codes uniquely identify each Node B or (base station). Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify Linduist to group the detected cells based on their scrambling code as described by Amerga et al. in order to identify each cell based on its corresponding scrambling code in preparation for identifying a potential cell with strong signal to be added to the active set and hence build a robust set for handoff.

Linduist in view of Amerga et al. fails to teach that creating a temporary relation between one of the cells in the list having an identical scrambling code as the detected set cell and one cell in the AS; and, adding the one of the cells in the list having an identical scrambling code as the detected set cell to the active set.

Stern-Berkowitz teaches that creating a temporary relation between one of the cells in the list having an identical scrambling code as the detected set cell and one cell in the AS; and, adding the one of the cells in the list having an identical scrambling code as the detected set cell to the active set (as described in column 9, lines 9-20). Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify Linduist in view of Amerga to associate the detected

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cell with cells in the list and active set having the same scrambling code as described by Stern-Berkowitz in order to register the detected cell with strong signal and hence update the active set with the new candidate cell for handoff.

Regarding claim 12, Linduist fails to teach the temporary relation is created between a cell in the list having an identical scrambling code as the strongest detected set cell, and one cell in the AS.

Amerga teaches teach the temporary relation is created between a cell in the list having an identical scrambling code as the strongest detected set cell, and one cell in the AS (as described in column 2, lines 28-31). Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify Linduist to build a temporary association with the cells in the list and active set with the same scrambling code as the detected cell as described by Amerga in order to find the corresponding cell in the list and hence identify a candidate cell with strong signal to add to the active set and hence build a robust set for handoff.

Regarding claim 15, Linduist teaches a Radio Network Controller (RNC) in a mobile telecommunication network (as described in column 1, lines 48-64) adapted for including a detected set cell (as described in column 4, lines 15-18) in an active set (as described in column 1, lines 48-56), wherein said detected set cell is a cell not identified by the network and said active set is the set comprising the base stations simultaneously connected to the same mobile terminal in soft handover (as described in column 1, lines 48-64), said RNC comprising: means for receiving a measurement report comprising a detected set cell from a mobile terminal located in a first cell as

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described in column 9, lines 61-64); means for providing a list for the first cell in the network with cells not defined as neighboring cells to the first cell (as described in column 4, lines 15-18).

Linduist fails to teach that the cells in the list are grouped based on their scrambling codes; means for identifying the scrambling code of the detected set cell.

Amerga teaches that the cells in the list are grouped based on their scrambling codes; means for identifying the scrambling code of the detected set cell (as described in column 2, lines 28-31 and column 5, lines 27-29). Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify Linduist to group the detected cells based on their scrambling code as described by Amerga et al. in order to identify each cell based on its corresponding scrambling code in preparation for identifying a potential cell with strong signal to be added to the active set and hence build a robust set for handoff.

Linduist in view of Amerga et al. fails to teach that means for creating a temporary relation between one of the cells in the list having an identical scrambling code as the detected set cell, and one cell in the AS; and, means for adding the one of the cells in the list having an identical scrambling code as the detected set cell to the active set.

Stern-Berkowitz teaches that means for creating a temporary relation between one of the cells in the list having an identical scrambling code as the detected set cell, and one cell in the AS; and, means for adding the one of the cells in the list having an identical scrambling code as the detected set cell to the active set (as described in

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column 9, lines 9-20). Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify Linduist in view of Amerga to associate the detected cell with cells in the list and active set having the same scrambling code as described by Stern-Berkowitz in order to register the detected cell with strong signal and hence update the active set with the new candidate cell for handoff.

Regarding claim 16, Linduist fails to teach the means for creating the temporary relation between a cell in the list having an identical scrambling code as the strongest detected set cell and one cell in the AS.

Amerga teaches the means for creating the temporary relation between a cell in the list having an identical scrambling code as the strongest detected set cell and one cell in the AS (as described in column 2, lines 28-31). Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify Linduist to build a temporary association with the cells in the list and active set with the same scrambling code as the detected cell as described by Amerga in order to find the corresponding cell in the list and hence identify a candidate cell with strong signal to add to the active set and hence build a robust set for handoff.

6. Claims 13 and 17 are rejected under 35 U.S.C 103(a) as being unpatentable over Linduist in view of Amerga, further in view of Stern-Berkowitz and further in view of Schwarz et al. (US Patent No. 7,248,889).

Regarding claim 13, Linduist in view of Amerga and further in view of Stern-Berkowitz fails to teach the steps of: determining if the added cell in the list corresponds to the detected set cell by performing uplink synchronization; and if uplink synchronization is achieved: confirming that the detected set cell is the added cell of list; converting the temporary relation into a permanent relation, and removing the added cell from the list; and, if uplink synchronisation is not achieved, putting the added cell in a specific position of the list.

Schwarz teaches the steps of: determining if the added cell in the list corresponds to the detected set cell by performing uplink synchronization; and if uplink synchronization is achieved: confirming that the detected set cell is the added cell of list; converting the temporary relation into a permanent relation, and removing the added cell from the list; and, if uplink synchronisation is not achieved, putting the added cell in a specific position of the list (as described in column 4, lines 63-67 and column 5, lines 1-8). Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify Linduist in view of Amerga and further in view of Stern-Berkowitz to perform the uplink synchronization with the new cell before adding it to the permanent list as described by Schwarz in order to verify its correct operation within the network and hence ensure a highly reliable handoff for the communication system.

Regarding claim 17, Linduist in view of Amerga and further in view of Stern-Berkowitz fails to teach the means for determining if the added cell in the list corresponds to the detected set cell by performing uplink synchronization; means for

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confirming that the detected set cell is the added cell of the list if uplink synchronization is achieved; means for converting the temporary relation into a permanent relation; means for removing the added cell from the list; and, means for putting the added cell in a specific position of the list if uplink synchronization is not achieved.

Schwarz teaches the means for determining if the added cell in the list corresponds to the detected set cell by performing uplink synchronization; means for confirming that the detected set cell is the added cell of the list if uplink synchronization is achieved; means for converting the temporary relation into a permanent relation; means for removing the added cell from the list; and, means for putting the added cell in a specific position of the list if uplink synchronization is not achieved (as described in column 4, lines 63-67 and column 5, lines 1-8). Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify Linduist in view of Amerga and further in view of Stern-Berkowitz to perform the uplink synchronization with the new cell before adding it to the permanent list as described by Schwarz in order to verify its correct operation within the network and hence ensure a highly reliable handoff for the communication system.

7. Claims 14 and 18 are rejected under 35 U.S.C 103(a) as being unpatentable over Linduist in view of Amerga, further in view of Stern-Berkowitz, further in view of Schwarz and further in view of Choi et al. (US Patent No. 7,031,277).

Regarding claim 14, Linduist in view of Amerga, further in view of Stern-Berkowitz and further in view of Schwarz fails to teach the step of informing the mobile

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terminal in soft handover about the added cell to the active set by transmitting a message comprising the scrambling code of the cells in the active set.

Choi teaches the step of informing the mobile terminal in soft handover about the added cell to the active set by transmitting a message comprising the scrambling code of the cells in the active set (as described in column 5, lines 47-60 and column 32, lines 2-6). Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify Linduist in view of Amerga, further in view of Stern-Berkowitz and further in view of Schwarz to send the updated active set including the new detected cells along with their corresponding scrambling codes to the mobile terminal in handoff as described by Choi in order inform the mobile terminal of the new active cells for handoff and hence ensure a highly reliable handoff process for the communication system.

Regarding claim 18, Linduist in view of Amerga, further in view of Stern-Berkowitz and further in view of Schwarz fails to teach the means for informing the mobile terminal in soft handover about the added cell to the active set by transmitting a message comprising the scrambling code of the cells in the active set.

Choi teaches the means for informing the mobile terminal in soft handover about the added cell to the active set by transmitting a message comprising the scrambling code of the cells in the active set (as described in column 5, lines 47-60 and column 32, lines 2-6). Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify Linduist in view of Amerga, further in view of Stern-Berkowitz and further in view of Schwarz to send the updated active set

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including the new cells along with their corresponding scrambling codes to the mobile terminal in handoff as described by Choi in order inform the mobile terminal of the new active cells for handoff and hence ensure a highly reliable handoff process for the communication system.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JALALEDDIN AMIRMOKRI whose telephone number is (571)270-5880. The examiner can normally be reached on M-F 8am-5m EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571)272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/J.A./

01/14/09

/Benny Q Tieu/
Supervisory Patent Examiner, Art Unit 4182